No 35

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Collinsania Canadensis.

No 11. 1817

Peter Cadwallader

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Dissertation
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Collinsonia Canadensis,

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Collinsonia Canadensis,

The subject which I have chosen for my Inaugural Dissertation, is the Collinsonia canadensis, generally known in this vicinity, by the name of Horse weed, because horses eat the young shoots which come up in the spring before other vegetation is advanced, It is not unfrequently called by the names of Knot weed, & Knot root, on account of the peculiar tuberous structure of the root. It was well known to Linnæus, who gave it the Generic name it still retains, in honour of Peter Collinson, F.R.S. a very active promoter of Botanical studies; by whom it was introduced as the first species into the English Gardens. It grows spontaneously in many, & perhaps in all parts of the United States; of this fact, however, I have not had an opportunity of making the necessary inquiry. But I have satisfied myself, that it is a native of Pennsylvania. It is found growing in solitary places; in low & marshy grounds; in woody swamps, and along the fence rows of the adjacent fields, It can readily be distinguished from almost any other vegetable in its vicinity, by its leaves, which are broad & long, terminating in a blunt extremity, always situated on the top of the stalk, having no radical leaves, as well as by the stalk itself, which grows from two to six feet in height, and never more than one in a place.

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The root is tuberous; its surface interspersed with numerous knots, from whence its name, somewhat resembling those found on the branches of the Oak tree, & requiring very considerable force to break them asunder, & when broken, the fibres are irregular, running in every direction. Its shape is long & irregularly round, having the stem shooting out obliquely from one extremity while to the other are attached its fibrous roots. It is most generally found on or near the surface of the ground.

The attention of Botanists has been particularly directed towards the flower of our present species of Collinsonia, in consequence of the Pistillum affording a curious & very illustrative example of the amatorial sensibility of plants. It is observed that about the time the Pollen is in its most perfect state, & about to escape from the anthers, the stigma of the Pistillum is seen to move around & remain in contact with one of the anthers for some time; then to forsake its first love & solicit, by its movements, a similar connection with the other stamen, Dr. Darwin drests this well known fact in all the gaiety & voluptuousness of Poetry, in his Loves of the Plants.— Canto 1st Line 51 – 56.—

Two Brother swains of Collins gentle name
The same their features & their forms the same
With rival love for fair Collinia sigh
Knit the dark brow & roll the unsteady eye
With sweet concern the pitying beauty mourns
And soothes with smiles the jealous pair by turns

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Botanical History

Collinsonia Canadensis belongs to the class Diandria & order Monogynia of the Sexual system of Linnaus, & natural order Labiata, of Jussieu,

Essential character of the Genus,

Collinsonia — Corrolla unequally divided - The lower lip being many cleft & Cappillary Stamens from two to four - Seeds four enclosed in the Persistent Calyx - One only coming to perfection the other three being constantly abortive —

Species Canadensis — Leaves - broadly ovate - inclining to heart shaped - smooth - Teeth of the Calyx short & awl shaped - Panicle terminate & compound with opposite ramifications -

In addition it may be observed,

The root is a long irregular Tuber & Perennial stem - sometimes almost equaling the human stature - Herbaceous - erect - quadrangular & solid - Leaves about six inches long opposite - Uppermost ones on very short footstalks - acute - bluntly serrated & slightly wrinkled -

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Historical view of its properties.

There appears to be considerabl difficulty in tracing the Collinsonia back to its origin as a medicine.

The Aborigines of America, who we are told, resort to the vegetable kingdom for the cure of all diseases, & to whom we are justly indebted for the discovery of some of our most valuable as well as active medicines, appear to have been acquainted with its virtues.

A Decoction of the dried leaves, has been very highly extolled by them for the cure of the Bite of the Crotallus Horridus.. (or Rattle Snake).- But this is not astonishing, since almost every plant of our Country, whether active or inert, has in its turn, been designated as possessing the same property.- The Collinsonia appears at one time to have been much celebrated for the cure of Rheumatism. It was used as an external application in the following manner, viz- Friction with the Leaves immediately over the part affected, & continued untill irritation was produced, when the disease for a time was suspended, & upon its recurring, the same mode of treatment was again pursued, with the same success; But this I think is by no means a fair trial of the medicine, as it may be said that the same benefit is to be derived from friction, either with flannel,

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with the hand, or with the Flesh Brush, as was winced in the recovery of the ever=memorable Captain Cook, while in the Island of Otaheite, & confirmed by, every Days experience here,- But the authority upon which I most rely, is my Friend, to whom I am much indebted for the information I have obtained, with respect to its most interesting medical properties, as well as discovery.- He tells me it was first used as a med=icine, by Doct. Josiah White, a self taught Physician of mount Holly, in new Jersey, in the year 1765= All the cases in which Doct. White used the Collinsonia had a view to its Diaphoretic effect, a property which it possesses in a very great degree, In Intermittent fever, which was very prevalent in the neighbourhood of mount Holly, during the residence of Doct. White in that place, whenever he found necessity for the use of Diaphoretic medicine, the Collinsonia was always resorted to & not without answering his mo=st sanguine expectations, in those states of the Disease in which a determination to the skin was indicated.- He employed it in preference to any other Diaphoretic; accordingly his prescription seldom or never failed of being crowned with success.- And I know of no medicine better calcul=ated to

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to answer the indication for which he gave it.
In the Hot stage, where the indication, as well as mode of treatment, seem to be clearly made out, namely, that of producing a copious determination to the surface of the body; which the Collinsonia when exhibited in the proper Dose universally excited.-
There is another form of the Disease, to which the Collinsonia is extremely well suited, viz., that wherein we are precluded from the use of Opium in consequence of the great degree of watchfullness which attends, together with hot skin, & some degree of fever, which symptoms the Opium is universally known to increase; & as a substitute I know of no medicine better calculated than the above; it excites a gentle moisture on the surface of the body, counteracts the diseased irritation, & by its benificent influence & timely administration, the patient is gradually relieved.
With regard to the propriety of using the Collinsonia in the cure of Rheumatism, I think there can be but little doubt, as every Practitioner in medicine is aware of the great advantages which are to be derived from the use of Dover's powders in the cure of this most painfull & distressing Disease; & when this medicine is not at hand, I presume to say no

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article of the materia medica, is better calculated to supply its place; I might almost say, to supersede its use, particularly in Country practice; as it can at all times be procured. It is universally known, & no one can refuse to take it, on account of any disagreeable taste.-

These are the advantages which have been derived from it, & many more might be enumerated, where the success of the practice has given credit to the assertion, & among them the following which, from their interesting nature, I shall not overlook.- I find upon consulting Dr Mease's Encyclopedia, a work of great celebrity, that many very alarming cases of Dropsy have been cured by an Infusion of the root of Collinsonia in Lyme; an account of which was communicated to the author by a corresponding Friend.- This is one among the many proofs which might be adduced in favour of its being added to the Materia Medica, in the room of many inert medicines, which now constitute a ~~great~~ portion of that interesting Branch of our Science, which time & experience can only efface from its pages.- Many active medicines have already been discovered to be natives of our own Country, such

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as Jalap &c.- And the time is fast approaching when the importation of foreign medicine will cease, & through the instrumentality of the researches of ~~the~~ our Botanists, we shall be ennabled to furnish sufficient matter for an American materia medica the contents of which shall be of equal value with the European.-

It is hardly necessary for me to state again that the Collinsonia is very active Diaphoretic; as this I have clearly proved, upon the authority of Doct. White, as well as that of my Friend, & it only remain for me to say of its Diaphoretic property, that it is the root which is used in the following manner; viz; Take of the bruised root ℥ij pour over it one quart of boiling water, let it stand for some time in an Earthen vessel, when it is to be boiled down to a pint & strained off for use; The Dose a small wine glass full every half hour, when you wish Diaphoresis, & its mode of operation similar to other Diaphoretics.-

I come next to speak of its application externally, in the cure of sore Legs.- There is perhaps no complaint to which the human body is liable, more troublesome to the Surgeon, or more difficult of

cure,

cure, than that of old Ulcers on the Legs; for situated on that part of the body most remote from the source of circulation, & where the natural actions are carried on but feebly even in a state of health, when compared to other parts; when by accident or some other cause, these parts become the seat of Disease & new parts are to be formed nature is not sufficient for the performance of the task; her operations are continually impeded by the langid state of the veins above alluded to; they not having sufficient vigour to produce granulations, the Ulcerative process still increases.--

In this state of affairs, Surgeons are much divided in their practice: while one set exclaim against the Horizontal posture for any length of time in consequence of injury to the general health operating against the production of healthy granulations, others are busily engaged in furnishing arguments to prove that it is the only successfull mode of treatment, But I do not think it necessary for me to enter here into any disquisition of the subject, as the contending parties have each their supporters & it would be taking up more time than can be allotted to an Experimental Essay.

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I shall only therefore examine those principles which appear to me to be immediately connected with the subject.--

In the first place in order to render our medecine as usefull as possible; it were well to follow the opinion of Sir Everard Home, that we should distinguish the various Ulcers on the Legs into different kinds, as far as it is possible upon general principles; by doing which the Surgeon will be better ennabled to treat the Ulcer; his subsequent labours will be much circumscribed, & he will only have to make Trial untill he has found that medicine which is most applicable to the particular species of Ulcer under consideration, as well as a knowledge of the different medecines, suited to each species of Ulcer.-- It is also necessary to take notice of a fact in the treatment of Ulcers, which is confirmed by every Day's experience; viz, that the same application, however well it may agree at first, will, if used beyond a certain time lose its good effects, so that whenever we find an Ulcer to have become stationary, our only object will be to change our prescription for some other of similar powers.--

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The most common Ulcers which we are in the habit of seeing, are those which arise either from local or Constitutional causes, and are denominated Indolent, & require for their cure either Constitutional or local remedies.- It is in this species of Ulcer that the Collinsonia is particularly serviceable But before I proceed any further, I will state the circumstances which led me to the practice.-

The recent leaves of the Collinsonia, when chewed, leave a lasting impression on the Tongue, slightly bitter, & very astringent; from which circumstance, I was induced to try it in the following cases;

Case 1st A middle aged German was received into the Almshouse in July, 1816, with an Ulcer extending from his ankle about half way up his Leg, with thick prominent edges, smooth & rounded, the granulations of a glossy & greyish appearance, together with considerable inflamation around the edges of the Ulcer; in this situation he had been for the greatest part of the Summer.- After bleeding & purging, & the various means for counteracting inflammation Caustic was applied to the edges of the sore,

the sore, with a bread & milk poultice, to be continued untill I should see him again; when I found him in a situation fit for the Decoction, which was made by taking a handfull of the recent leaves, adding to them a quart of boiling water, to be boiled down to a pint, with which the Ulcer was washed three or four times a Day for a week; at the end of which, it began to put on the appearance of an healthy Ulcer, & by the end of two weeks its ~~began to~~ circumference scarcely exceeded that of a Dollar; I continued its use until it was perfectly cured.—

Case 2d, Mr. G. Johnson received a bruise on his shin in April, 1816, which at first did not communicate externally, but blood being extravasated ~~underneath~~ in the cellular membrane, as the consequence, at the end of two weeks, an Ulcer was found about an inch in Diameter, which resisted every application, as it appeared to get worse every Day; About two months after the accident I saw him, at which time he was much alarmed; from the state in which I saw it, as well as from the length of time it had existed, I was induced to believe

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that the Ulcer was prevented from healing, by some local cause, operating against the production of healthy granulations, as his general health was very good; I now had him bled & purged, & ordered him a low diet, together with a free use of the Decoction of the Collinsonia: he was well pleased with the medicine, & in the course of ten Days from its first application, it was perfectly well & still continues so.—

It is an observation somewhere to be met with, & very applicable in the present instance, that one well attested case establishes a truth as incontestably as a thousand equally averred.— with this view of the subject, I have only to state while on the subject of Indolent Ulcer, that during the last summer I had an opportunity of seeing twenty or thirty cases of Ulcers, & in all of them I have used the Collinsonia with decided advantage, & in many of them no other medicine; I have never failed of effecting a cure. But before I close my account of Collinsonia, I think it proper to state the decided advantages which were derived from the use of the medicine in the cure of two or three cases of Oedematous Ulcer which fell under my care during the last summer They were the following.—

Case 1st, An old Black man had for some time been troubled with swellings of the lower extremities, Ulcers now began to appear on one of his Legs, while the swelling of the other almost entirely disappeared; They exhibited the following

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following appearances, viz, purplish spots on the anterior part of the Leg, which sooner or later, ulcerated with considerable inflammation, particularly when sloughing took place, together with great pain & uneasiness in the part ulcerated.- I was prevented from the use of antiphlogistic treatment in consequence of general debility.- The Bandage was resorted to, but without any good effect.- I was now resolved to try the Collinsonia, having witnessed much benefit from it in the preceding forms of Ulcers; I ordered the Leg to be washed with a very strong Decoction of the recent Leaves, three times a Day, & to continue the Bandage at a moderate pressure; this practice was strictly persevered in for the short space of two weeks; the sores began to heal kindly, from which time he gradually recovered & is now able to do a good Day's work.- Some other cases were treated in a similar manner with the Collinsonia, but considering them so nearly like that I have already described it appears unnecessary to repeat them here.- I am not alone in my experiments on the Collinsonia in the cure of Ulcers, several of my medical Friends have been as successfull as myself, & all agree in saying they have never used any medicine, with the Exhibition of which they have better pleased, with than that of the Collinsonia.—

I close my observations on this medicine with one remark which is, that If I have not added one tittle to the list of cures, one consolation is left me, that I have taken nothing from them.—

Finis —